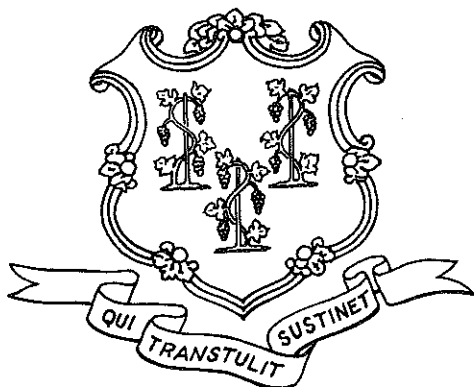


# OPEN SPACE

IN THE COGINCHAUG AND MATTABESSET RIVER VALLEYS





## STATE OF CONNECTICUT

THOMAS J. MESKILL, GOVERNOR  
Department of Agriculture and Natural Resources  
Joseph N. Gill, Commissioner

January 1, 1971

In June, 1970, the State of Connecticut authorized a feasibility study to determine the need for the conservation, preservation and protection of the Coginchaug and Mattabesset river watersheds, and the optimum multi-use development of their natural potential. This study was an outgrowth of both citizen and governmental concern in preserving the integrity of these rivers.

The entire area of the feasibility study encompasses many problems of ecological, economic and social regard. Severe encroachments are evident, most visibly in the misuse of the rivers as a dumping ground for wastes, and through the fragmented, disoriented development along the river's edge.

We have analyzed the existence of open space and the numerous elements threatening it in the river valleys in an attempt to recognize and delineate patterns of future preservation. It is our intention to offer this study for use as a definite plan of action for protecting open space in this area.

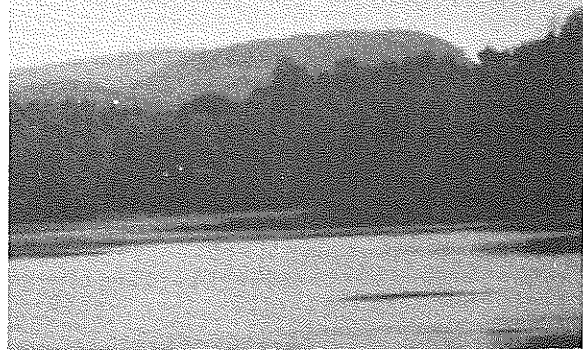
Respectfully submitted,

*Morton S. Fine*

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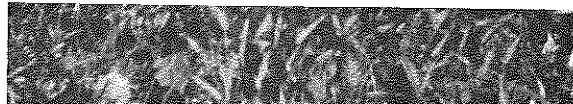
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**GENERAL CONCLUSIONS**

- Open space is now recognized as a functional element in land use planning.
- There is still desirable undeveloped open space in the Coginchaug and Mattabesset river valleys. Moreover, several large tracts are available without the necessity of taking inhabited structures.
- Open space, because of accelerated population expansion, is diminishing in these valleys at a faster rate than the national level.
- Time is running out for acquisition of open space. A substantial amount of the remaining open space must be acquired while it is still available. Furthermore, the costs of acquisition will increase if there is a long delay.
- Monies are available in various funds for the purchase of significant amounts of open space in strategic locations.
- In lieu of acquisition by purchase, environmental controls such as protective legislation to insure adequate minimum flows below reservoirs, tax assessment benefits, restrictive development and flood plain zoning, as well as securing fishing and hunting privileges, are also available to aid in the protection and preservation of open space.
- The climate is improving in government, in the legislature and with the public for the support of open space programs and projects.
- This report offers specific guidelines and recommendations for the preservation of open space in the Coginchaug and Mattabesset river valleys.

# ROLE OF OPEN SPACE





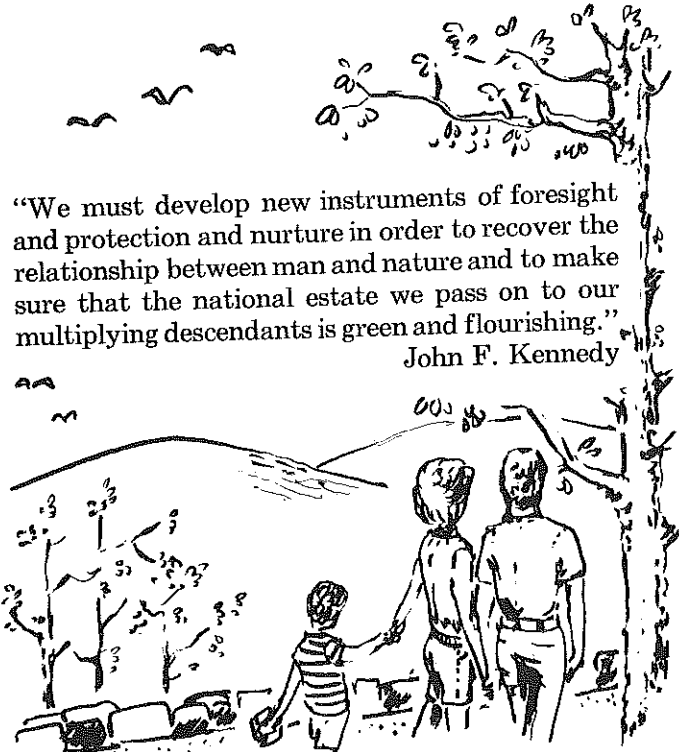
## ROLE OF OPEN SPACE

Open space means different things to different people; a farm, a state park, a village green or a vacant city lot.

The idea of open space is not new. What is new is the recognition and acceptance of open space as a functional element in land use; as a basic concept in the planning of housing, highways and commercial establishments. And an even newer idea is the inclusion of undeveloped open space in planning recreational facilities.

Actually, open space is a natural resource with close inter-relationships to other natural resources; soil, water, air, forests, fish and wildlife.

The current interest in environmental preservation has brought home to planners, developers and the public a realization that open space has a utility of its own. To be successful in its role, the open space func-



“We must develop new instruments of foresight and protection and nurture in order to recover the relationship between man and nature and to make sure that the national estate we pass on to our multiplying descendants is green and flourishing.”

John F. Kennedy

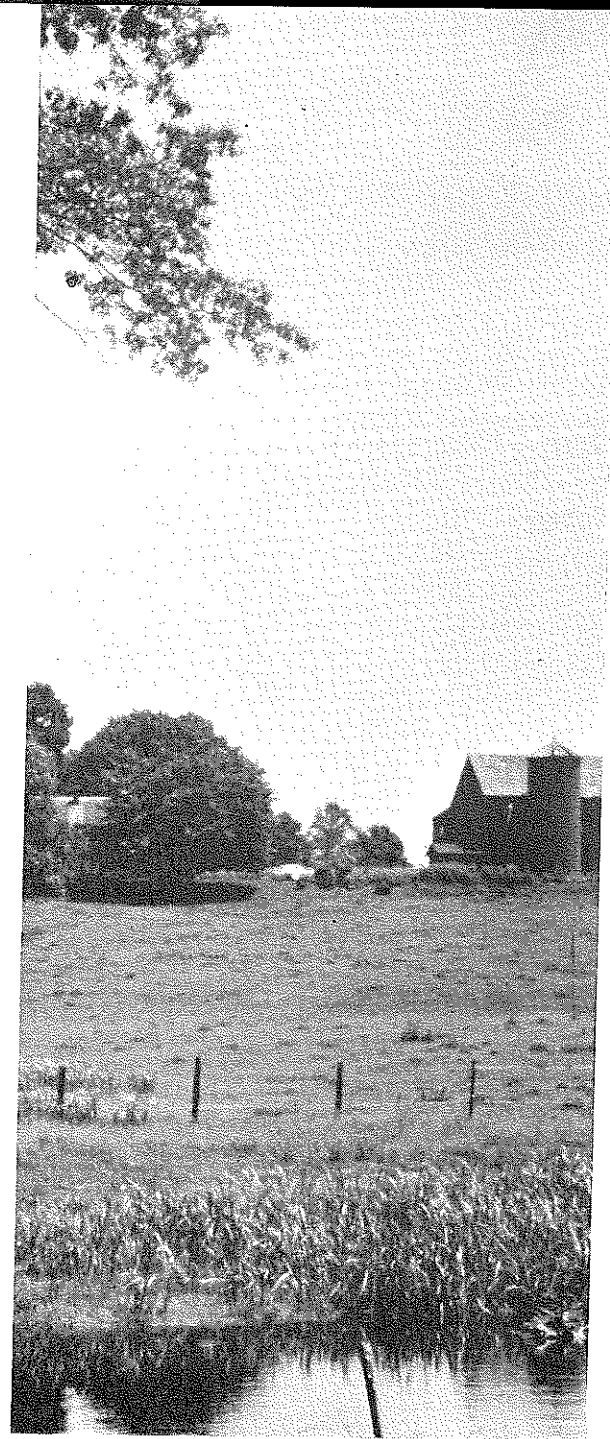
tion must insure an appropriate balance between use and preservation, between development and non-development.

As population grows, open space becomes increasingly important as breathing space. An integral part of the total environment, open space contributes not only to physical and mental well-being but adds dignity and a serenity to everyday living.

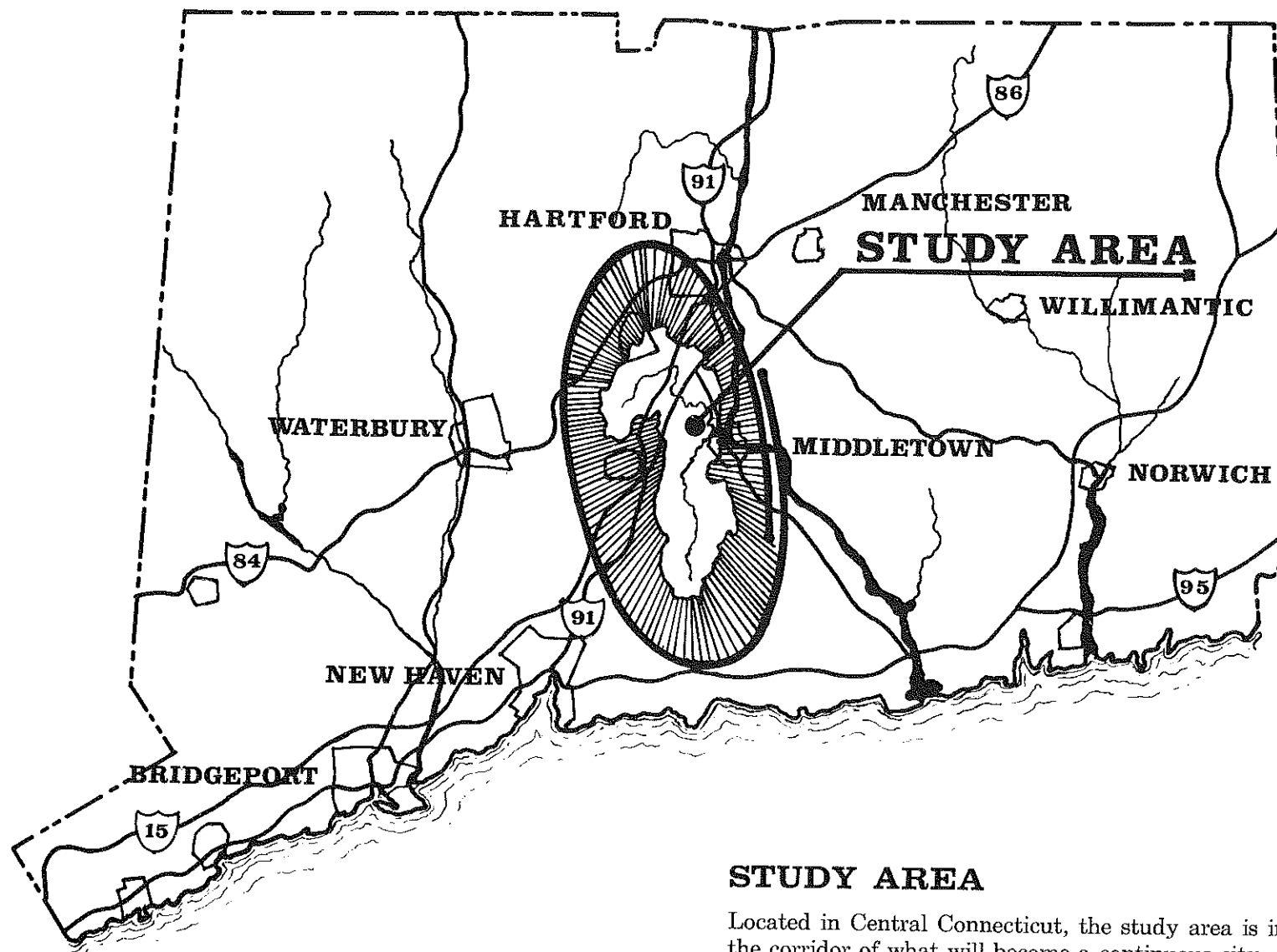
Open space, like other natural resources, is diminishing at an alarming rate. What is done with remaining open space will largely determine the quality of daily life for the future generations living in the Coginchaug and Mattabesset river valleys.

The objective of this study is to designate opportunity and delineate specific areas along the water courses of the Coginchaug and Mattabesset Rivers which could be incorporated into a multiple use, open space, linear greenbelt.

# THE STUDY AREA







SCALE IN MILES

5

0

10

20

NORTH

## STUDY AREA

Located in Central Connecticut, the study area is in the corridor of what will become a continuous city, a megalopolis, growing up between Boston and Washington, D.C.

Focal points of the area are two tributaries of the Connecticut River: Coginchaug River and Mattabesset River.

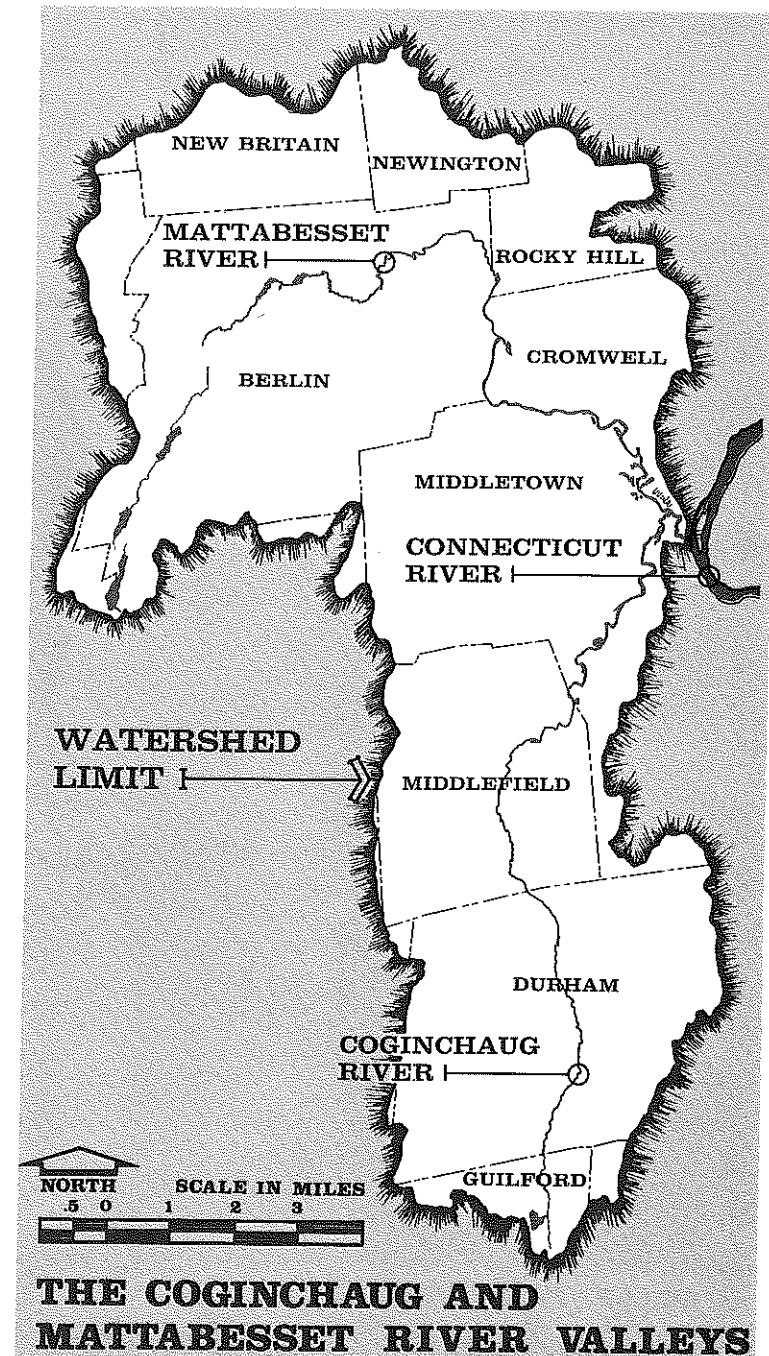
The two river valleys, narrow and relatively fertile, are flanked by rolling hills of thin soil and hard crystalline rock. The two watersheds are favored by a fine climate with an average yearly temperature of 50 degrees and an average annual rainfall of 50 inches.

The Coginchaug River, originating near Myer Huber Pond, Town of Guilford, flows in a general northerly direction through the towns of Durham, Middlefield and Middletown to join the Mattabesset River in the Cromwell Meadows, a distance of 15 miles.

The Mattabesset River (or Sebeth River) originates in the area that has become Merimere, Hallmere and Kenmere reservoirs of the City of Meriden water supply. Below Hart Ponds, new units in the City of New Britain water supply, the stream picks up a perceptible flow. For about 18 miles the Mattabesset River follows a winding course, first northerly then easterly, through the towns of Berlin, Cromwell and Middletown to the Cromwell Meadows where it is joined by the Coginchaug River before entering the Connecticut River.

The study area is rapidly becoming urbanized. Population growth, gradual until 1940 when there were 40,000 people in the study area, has burgeoned to a population of 70,000 in 1970. Although the population within the watershed limits is 70,000, the study area is presently serving a population of over 500,000 persons. The projected trend indicates the present population will double by the year 2000, placing unprecedented pressure on the remaining open space.

The Coginchaug River Valley, especially above Wadsworth Falls State Park, retains a distinct rural atmosphere, while the Mattabesset River Valley is more commercially developed. In spite of such differences, the study area in general forms a sufficiently homogeneous unit to formulate realistic and meaningful recommendations for the utilization and preservation of open space.



## FEATURES OF THE STUDY AREA

### TOTAL AREA

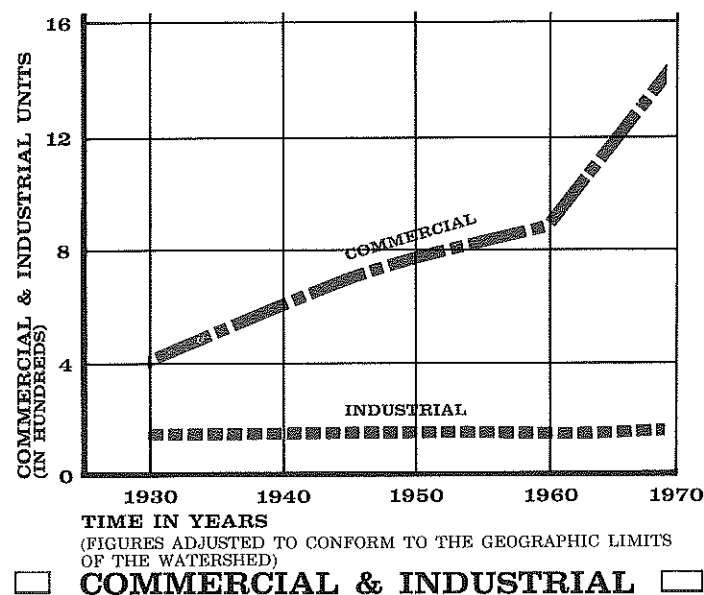
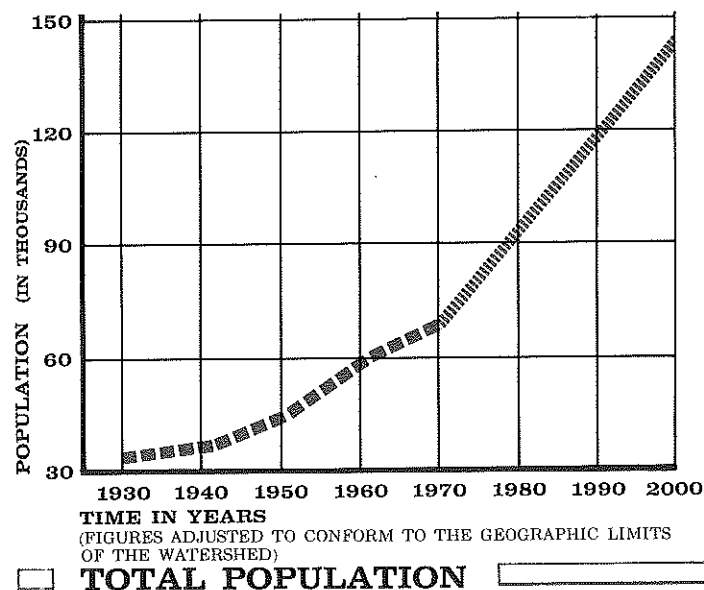
Area	68,096 Acres
Population	70,000 (1970)
Rainfall (average annual)	50 Inches
Snowfall (average annual)	37 Inches
Runoff (average annual)	23 Inches
Average Temperature	50°F
Maximum Temperature	102°F 7/3/66
Minimum Temperature	-26°F 1/22/61

### COGINCHAUG RIVER

Beginning Point	Near Myer Huber Pond
Highest Elevation	275 Feet
Lowest Elevation	6 Feet
Length	15 Miles
Average Fall	17.7 Feet/Mile
Average Flow	45 CFS
Maximum Flow	1,110 CFS 3/13/62
Minimum Flow	0.3 CFS 8/2/64
Watershed Area	24,096 Acres
Gaging Station	Rockfall

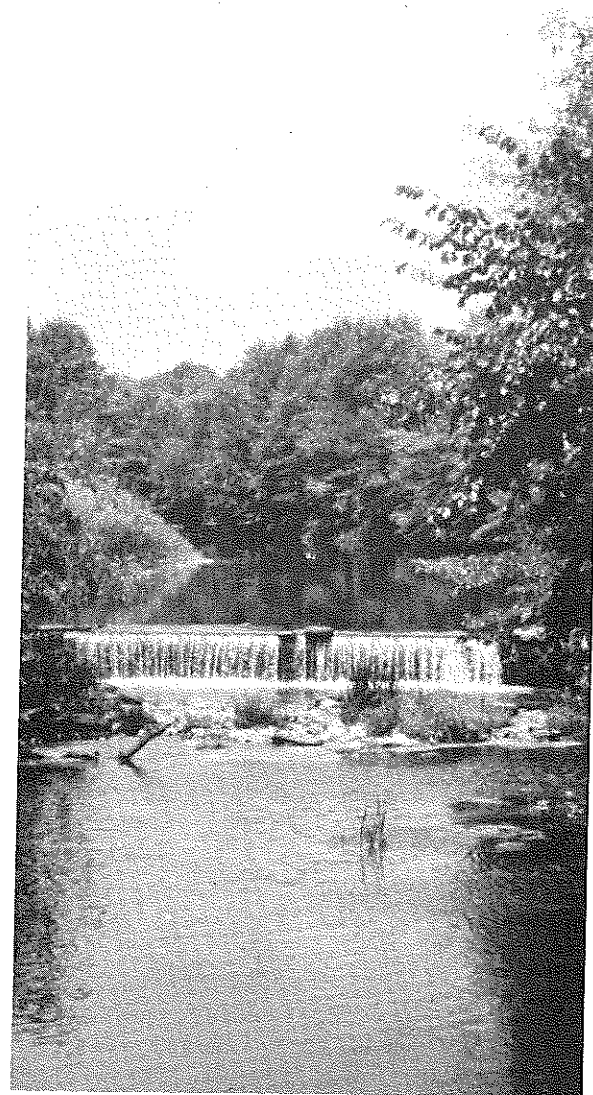
### MATTABESSET RIVER

Beginning Point	Merimere Reservoir
Highest Elevation	394 Feet
Lowest Elevation	6 Feet
Length	18 Miles
Average Fall	21.7 Feet/Mile
Average Flow	54 CFS
Maximum Flow	2,222 CFS 3/13/62
Minimum Flow	10 CFS 9/27 & 29/64
Watershed Area	44,000 Acres
Gaging Station	East Berlin



**EXISTING**

**OPEN SPACE**



## EXISTING OPEN SPACE

In spite of the encroachments associated with a rapidly increasing population and expanding commercial development, there is still a substantial amount of open space remaining in the study area. This open space consists chiefly of agricultural lands, water supply lands, recreational lands and wetlands.

## AGRICULTURAL LANDS

On the basis of the study area's economy, agricultural acreage has decreased nearly 60 per cent since the 1930's, when there were about 39,000 acres of farmlands. Today, there are approximately 16,000 acres of this choice open space. It is to these lands that developers look when planning new projects.

## WATER SUPPLY LANDS

Water supply lands comprise about 4% per cent of the study area's acreage.

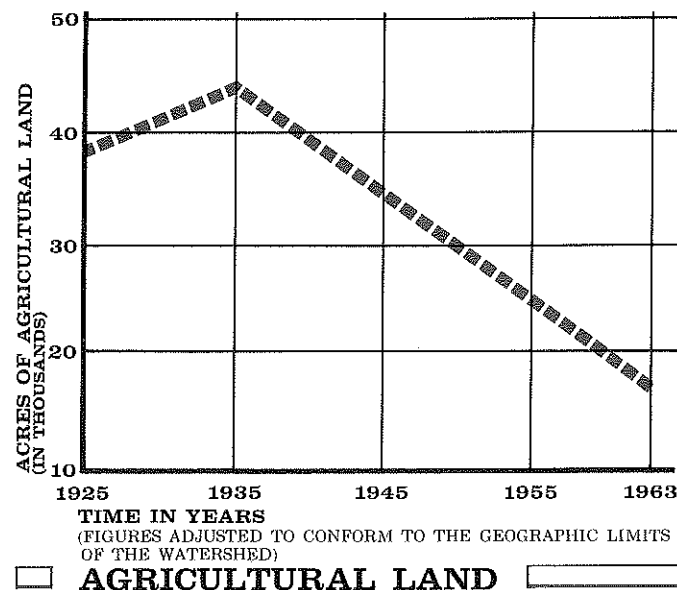
All water supply reservoirs in the study area are single-purpose facilities. Fishing and other water-based recreations are not permitted. In fact, during this study, Hart Ponds, formerly open to the public and providing excellent fishing, were closed when the ponds were incorporated into the City of New Britain water supply.

At present, water supply lands serve a valuable open space function by providing breathing space and an enhancement of the esthetic qualities of the landscape.

## WETLANDS

In the past, the significance of wetlands has been virtually ignored. However, they are now rapidly being recognized as the most valuable of all open space.

Cromwell Meadows, over 600 acres at the confluence of the Coginchaug and Mattabesset Rivers, and Durham Meadows, about 1,000 acres in the upper part of the Coginchaug River, are the most important wetlands in the study area.



Wetlands provide breeding, feeding and resting areas for birds, fish and animals, and furnish recreation for sportsmen, photographers and bird watchers without leaving the scars of mass recreational use. Besides their value for recreation, wetlands serve as nature's safety valves, vital in the control of watershed runoff. They help regulate stream flow, providing for temporary storage for substantial amounts of water during flood periods, slowly releasing their overloads as stream levels recede.

When wetlands are drained or filled or partially filled, as occurred in Cromwell Meadows for the construction of Route 9, they lose some of their effectiveness for temporary storage.

The ever-present ecological cycle taking place in our environment is of significant value in that it provides a greater storage capacity for food and nutrients than forest areas. Vegetation in the marshes matures and deteriorates, contributing nutrients to the water as the plants decay. These nutrients develop a fertility for new

## EXISTING OPEN SPACE

NO.	NAME	TOWN	ACRES	FACILITIES
1.	West Peak State Park	Berlin	35*	A,L,M
2.	Merimere Reservoir	Berlin/Meriden	50	B,E
3.	Hallmere Reservoir	Berlin	20	B,E
4.	Kenmere Reservoir	Berlin	20	B,E
5.	Kensington Fish Hatchery	Berlin	41	B
6.	Silver Lake	Berlin/Meriden	150	A,G,I
7.	Lamentation Mountain State Park	Berlin	48	A,M
8.	North Brook Well Site	Berlin	8	C
9.	Timberlin Golf Course	Berlin	338	B,Q,
10.	Hart Ponds	Berlin	100	B,E
11.	Ragged Mtn. Mem. Reserve	Berlin	553	B,L,N
12.	Wasel Reservoir	Berlin/Southington	103	B,E
13.	Shuttle Meadow Reservoir	Southington	205	B,E
14.	New Britain Water Company Site	New Britain/Southington	143	B
15.	Shuttle Meadow Country Club	New Britain/Berlin	338	C,I,P,Q
16.	Walnut Hill Park	New Britain	89	B,O
17.	Martha Hart Park	New Britain	38	B,O,P,R
18.	Willow Brook Park	New Britain/Berlin	87	B,H,O,T
19.	Hungerford Park	Berlin	85	B,N,O
20.	Upper Pond	Berlin	20	B,I
21.	Railroad Pond	Berlin	15	B,I
22.	Brickyard Ponds	Berlin	126	C,I
23.	Willow Brook Site	Berlin	40	C
24.	Patterson School	Newington	73	B,O
25.	Webster Brook Site	Newington	5	B
26.	Webster Park	Berlin	52	B,J
27.	Berlin Fair	Berlin	120	C,R
28.	Middletown Water Company Site	Middletown/Middlefield	1000	B
29.	Mount Higby Reservoir	Middletown/Middlefield	122	B,E
30.	Van Buren Moody School	Middletown	34	B,O
31.	Westfield Falls	Middletown	4	B,I,M
32.	Camp Poplar	Middletown	18	C,H,O
33.	Cromwell Meadows	Middletown/Cromwell	500	A,D,K
34.	Spencer School	Middletown	7	B,O
35.	Veteran's Memorial Park	Middletown	39	B,G,L,M,P
36.	Palmer Field	Middletown	9	B,O
37.	Butternut Hollow Park	Middletown	11	B
38.	Starr Mill Pond	Middletown	19	C,I

### FACILITIES

- A. State Owned/Cont.
- B. Municipally Owned
- C. Privately Owned
- D. Wetlands
- E. Water Supply
- F. Fish Hatchery
- G. Boating
- H. Swimming
- I. Fishing
- J. Camping
- K. Hunting
- L. Hiking
- M. Picnicking
- N. Riding
- O. Playfields
- P. Tennis
- Q. Golf Course
- R. Winter Sports

\*Acres within Watershed only.

Note: See existing open space fold-out map for location.



## EXISTING OPEN SPACE

NO.	NAME	TOWN	ACRES	FACILITIES
39.	Long Lane School	Middletown	55*	C,O
40.	Snow School	Middletown	17	B,O
41.	Mercy Convent	Middletown	83	C
42.	Mercy High School	Middletown	32	C
43.	Vinal Regional Technical School	Middletown	33	C,N
44.	Marszalek Park	Middletown	3	B,O
45.	Rockfall Corporation	Middletown	8	C
46.	Wadsworth Falls State Park	Middlefield/Middletown	285	A,H,I,L,M,O
47.	Memorial School	Middlefield	20	B,O
48.	Sugar Loaf Hill	Middlefield	32	B
49.	Center School	Middlefield	4	B,O
50.	Chestnut Hill	Middlefield	15	B,O
51.	Beseck Lake	Middlefield	120	A,G,H,I
52.	Beseck Lake Beach	Middlefield	80	B,I,M
53.	Indian Springs Golf Course	Middlefield	70	C,Q
54.	Peckham Field	Middlefield	4	B,M,O
55.	Happy Acres	Middlefield	50	C,G,H,M,P
56.	Regional Training Camp	Middlefield	15	C,H,J
57.	Powder Hill	Middlefield	300*	C,G,J,M,P,R
58.	Nutmeg Beagle Club	Middlefield	112 <sup>1</sup>	C
59.	Lyman Meadow Golf Course	Middlefield	120	C,Q
60.	Laurel Brook Reservoir	Middlefield	64	B,E
61.	Durham Meadows	Durham	487	A,D,H,L
62.	White Farm	Durham	110	B,K,N,O,R
63.	Durham Fair Grounds	Durham	38	C,J,K,N,O
64.	Colonial Green	Durham	1	B
65.	Durham Jr. & Sr. High School	Durham	8	B,J,M
66.	Korn School	Durham	39	B,M
67.	Farnum Neighborhood Camp	Durham	67	C,G,H,M,R
68.	Cockaponset State Forest	Durham/Middlefield	442*	A,K,M
69.	Frederick Brewster School	Durham	17	B,M
70.	Sawmill Brook Site	Durham	348	B,I,K,L,R
71.	Parmelee Brook Site	Durham	180	B,K,M
72.	Tri-Mountain State Park	Durham	14*	A,M
73.	Wallingford Water Company Site	Durham	244*	C
74.	New Haven Racoon Club	Durham	72	C,G,I,L,N
75.	New Haven Water Company Site	Guilford	48*	C

### FACILITIES

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- M. Picnicking
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\*Acres within Watershed only.

Note: See existing open space fold-out map for location.

growth used as food by wild game and certain species of fish. The nutrients also provide food for microscopic animals which form the first link in a food chain cycle. Finally, wetlands enhance the environment and, because of limited use by man, retain their centuries-old character.

### **RECREATIONAL LANDS**

Recreational lands have long been closely linked with open space. In fact, until recently, open space and recreational lands were virtually synonymous. Because of the rapidly increasing population which intensifies the use of existing recreational areas, the relationship between open space and recreational lands has been lost. Many recreational lands can no longer qualify as open space in terms of esthetic qualities, serenity, and an escape from urban environments. The National Recreation and Parks Association recommends a ratio of one acre of land for every 100 population in areas surrounding urban centers. Population growth has exceeded the establishment of recreational lands in recent years, thus infringing on this proportion.

Therefore, we must now recognize that intensively used recreation sites sometimes detract from the quality of the environment. For instance, in Wadsworth Falls State Park, the picnic areas show noticeable signs of excessive use and the hiking trail also used as a horse trail shows evidence of erosion. Even remote hiking trails and scenic overlooks have severe litter problems.

Nevertheless, the ever-increasing demand for public outdoor recreation will make it necessary to provide more and more facilities. Careful selection of sites and planning with the inclusion of some undeveloped open space will be needed so that recreation developments will not only provide open space but help to protect it. Since federal participation in park development is limited, much of the burden of establishing needed recreational lands must be planned and financed by State agencies, local agencies, or the private sector.

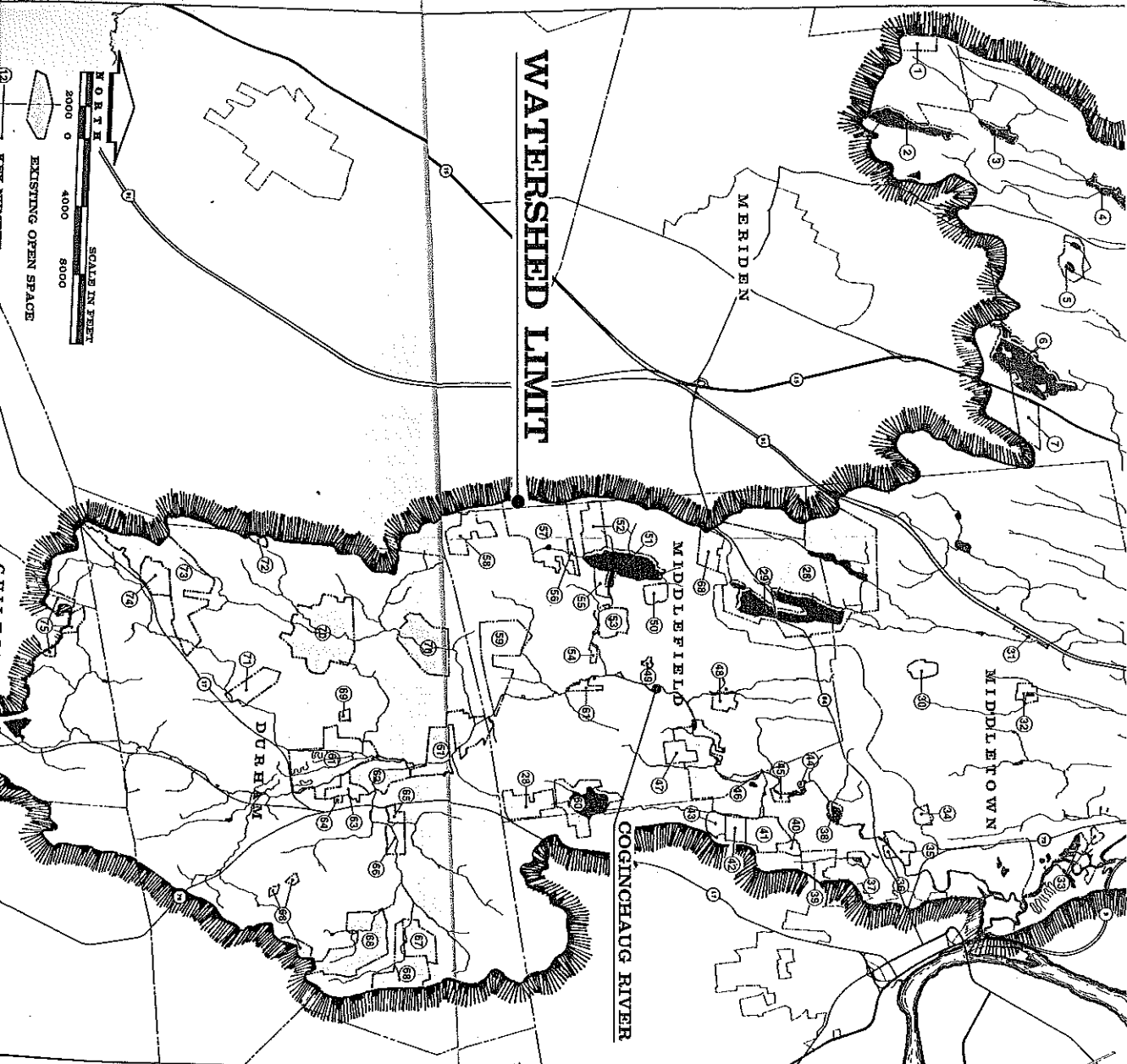
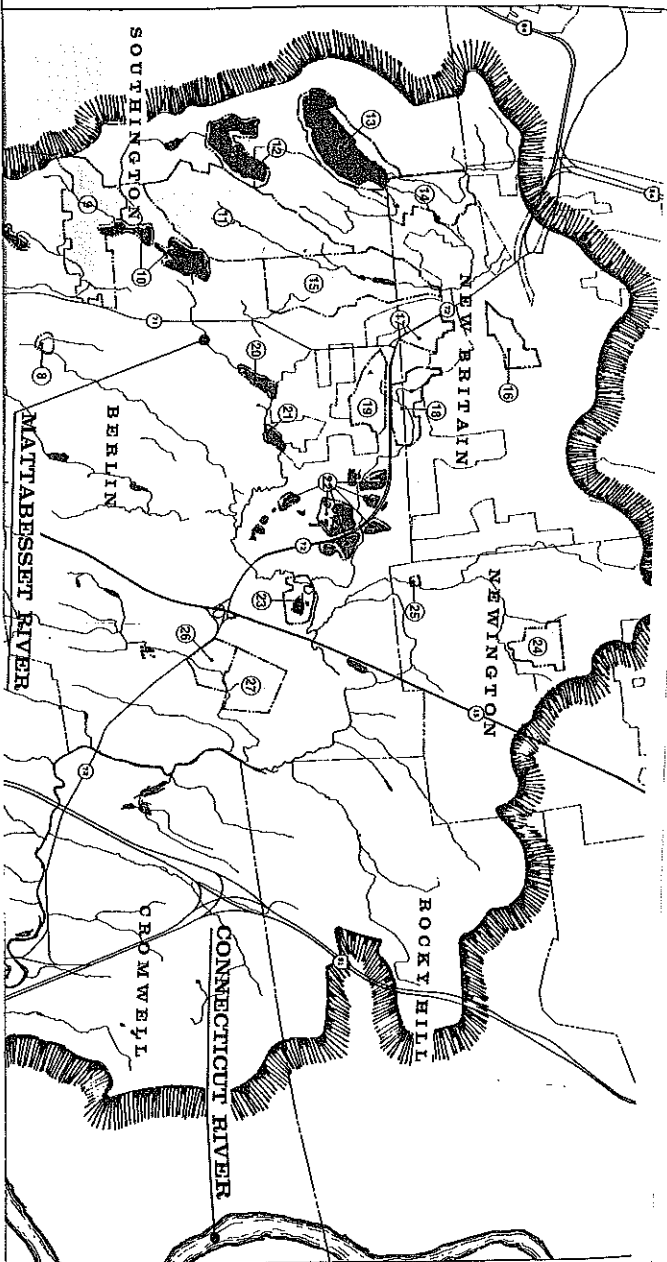
### **UTILITY LANDS**

A substantial amount of open space in the study area is owned or controlled by utility companies. The intrusion of utility company development has marred the landscape, many times causing permanent damage to our immediate environment. In long-range transmission, the problem of extensive rights-of-way for overhead utilities has not been resolved economically, even though most telephone and low voltage power lines are presently being installed underground. Such organizations as the Bureau of Outdoor Recreation which requires subsurface installation of all utility lines for funding on some recreational projects, has provided a path for others to follow.

Local municipalities should encourage utility company participation in developing open space for public use and enjoyment in rights-of-way. An example of this approach in the study area is the Mattabesset Sewer Authority Trunkline right-of-way in the Mattabesset Valley. This right-of-way could be developed for recreational use and become a valuable supplement to the existing overburdened recreational facilities in the immediate area. Future long range planning should incorporate the corridor concept under which various utilities plan trunklines for a single corridor.

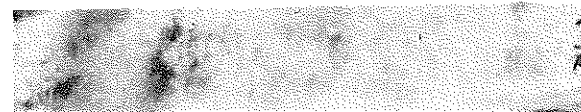
Indiscriminate use of herbicides to kill vegetation along electric transmission rights-of-way must be controlled. Local authorities should encourage utility companies to develop a program to use herbicides selectively to avoid damage to desirable ground cover.







**PRESERVING OPEN SPACE**



## PRESERVATION OF OPEN SPACE

Land is a fixed resource in the study area, comprised of 68,000 acres. If population projections hold, over 150,000 people will be squeezed into these 68,000 acres by the year 2000.

Moreover, with increased income, more leisure and greater mobility, an individual's use of space has tripled in recent years. He lives in one place, works in another miles away and seeks recreation even farther away.

No one can stop the spread of urbanization into undeveloped areas. But, to preserve some of this remaining open space, two courses of action, *controls and acquisition*, are recommended:

## CONTROLS

Open space in the Coginchaug and Mattabesset river valleys which can be acquired for public ownership is limited, so attention must be directed to controls as a means of preserving open space.

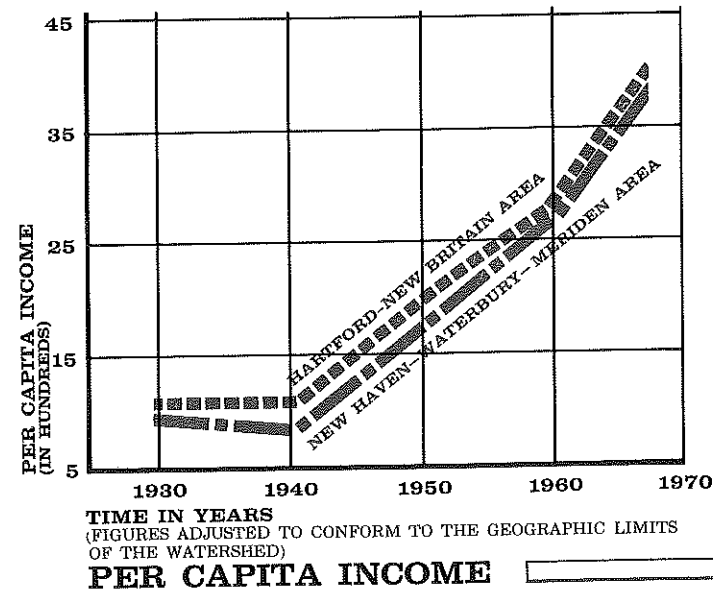
### BY EXECUTIVE ACTION:

Open space is sometimes threatened suddenly with little time to organize ways and means to meet the threat. In such situations, executive action is necessary. For example, if important wetlands are endangered by commercial development or highway construction, such as the building of Route 9 through the Cromwell Meadows, it is advisable that the Governor intercede so that all factors can be evaluated.

Similar action was demonstrated during building excavations at Rocky Hill in 1966 when dinosaur tracks were discovered. Executive action saved this important site which eventually became Dinosaur State Park.

### BY ADMINISTRATIVE ACTION:

Highway design has often neglected to properly integrate the highway with its environment, not so much because of insensitivity on the part of highway



designers, but rather due to a narrow interpretation of their charge. This has resulted in highways which serve the limited sector of the public who become the "highway user". Little if any attention has been paid to the social impact of the highway in the matter of esthetic value for those who view it and those who travel upon it.

In the study area, for example, the proposed corridor of Route 66 crosses the Coginchaug River Valley. Construction of this transportation facility will, by definition, modify the natural land surface. Administrative action, however, can insure that highway planning incorporates esthetic factors of both the highway and the abutting corridor, so as to contribute to highway safety, economy, utility, and the esthetic character of the corridor itself. When combined with rigorous engineering standards, properly applied highway beautification techniques can make driving more enjoyable without impairing the highway's usefulness for commercial or other types of traffic.

Effective action in this regard requires that the highway design be evaluated by the broadest kind of inter-agency team. These teams must include several design disciplines such as engineering, landscape design and planning. The team must also include those knowledgeable in real estate, economics, sociology, architectural history, acoustics, and lighting. It is essential that the multi-agency team be responsible to a decision-making team including representatives of all levels of government in all public programs. Such a team can test all tentative design concepts against previously recorded decisions. It would be the function of this team not to insure that all highway construction avoid open space, but that the highways and the open space complement each other. This can be accomplished in some instances by taking a highway past scenic areas. The selection of a highway location should take into account the availability of scenic vistas and the detailed layout of the route should be related to its immediate surroundings — landscape and otherwise. At times, roads could in effect become two separate

routes with a variable width between the opposing roadways. Rest stops can be provided at the most scenic viewpoints. Also in the planning of the location of highways, the traditional pattern of open fields and forests should be maintained as much as possible. Care should be taken that no detracting structures or activities are allowed anywhere within the view of non-highway related recreational land uses. Highways crossing pathways, waterways or trails, or built within view of these recreational activities should consider not only the preservation of these facilities but the view of the highway presented to persons using the facilities.

#### Stream Channel Encroachment Lines

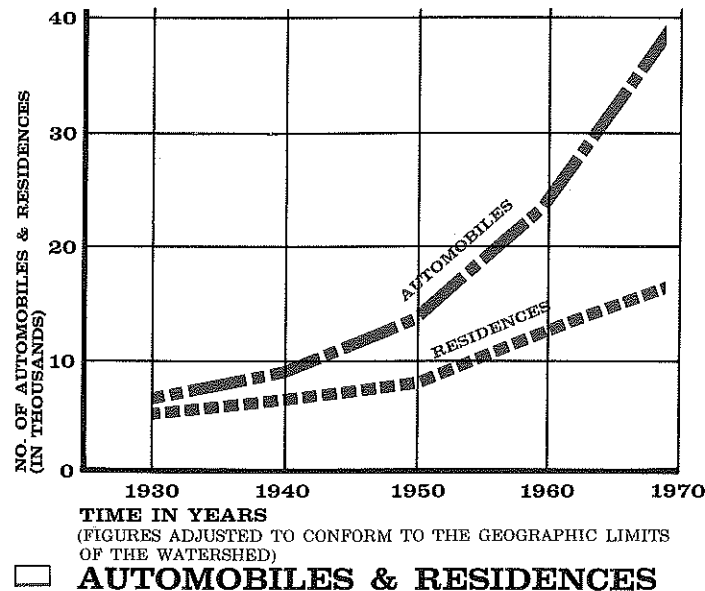
In Connecticut, the strongest tool for protecting flood prone areas from development is "Stream Channel Encroachment Lines," which provide that "no obstruction or encroachment shall be placed by any person, firm or corporation, public or private, unless authorized by said [State Water Resources] Commission". Such lines should be established before expensive development takes place which later may require costly flood control procedures.

Both the State Water Resources Commission and local municipalities have the authority to establish Stream Channel Encroachment Lines. Since the Commission, at present, is concerned chiefly with larger water courses having a history of serious flooding, it is recommended that the municipalities in the study area take prompt action in establishing Stream Channel Encroachment Lines.

#### BY LEGISLATION:

##### Open Space Zoning

Also known as "natural resource zoning" and "conservation zoning," open space zoning is an extension of the principles relied upon to sustain agricultural zoning and flood plain zoning. There has been a hesitancy to put open space zoning, per se, into effect because of the legal complications: constitutional rights and "due process" laws.





It is recommended that legislation be enacted at the state level providing for all state agencies involved to allow for controlled recreational uses compatible with new areas under consideration. The legislation should also provide that the water supply agency be responsible for installing adequate treatment facilities so the impoundments serve not only as open space but as true multiple-use facilities.

#### Minimum Flows Below Reservoirs

Water courses below reservoirs often deteriorate due to the lack of a required minimum flow below reservoir dams.

It is strongly recommended that state legislation be enacted giving authority to the appropriate agencies to regulate minimum flows below new reservoirs according to hydrological and biological needs by installation of outflow structures. Flow augmentation depends on adequate reserve storage, so impoundments should be designed accordingly to allow for excess flow.

An excellent example of the need for such authority is demonstrated in the proposal to build water supply reservoirs on Sawmill Brook and Parmelee Brook, tributaries of the Coginchaug River in the Durham Meadows section.

During periods of drought, stream flow in the Coginchaug River is greatly reduced, raising the water temperature to a point critical for trout. Velocity in some sections is so reduced that the stream is practically stagnant, creating growths of algae and aquatic weeds, a detrimental condition in trout streams. Withdrawal of water from such an important water source as Durham Meadows could, in dry periods, reduce stream flows even more in the Coginchaug River.

#### Minimum Flow Standards For Streams

Consumptive uses of stream waters, either by direct pumping or diversion devices are increasing significantly. In the Coginchaug River for instance, stream water has been withdrawn for crop irrigation and emergency water supply. Such withdrawals take place



in the summer when stream flow is usually reduced by natural conditions. The severely reduced stream flow that results is often detrimental to aquatic life, sometimes threatening the existence of some species.

It is recommended that legislation be developed by the appropriate state agencies to correct this situation. Suggested control methods include the establishment of minimum flow standards of individual streams, similar to those in the State of Connecticut's water quality classification of streams.

#### **BY POLLUTION ABATEMENT:**

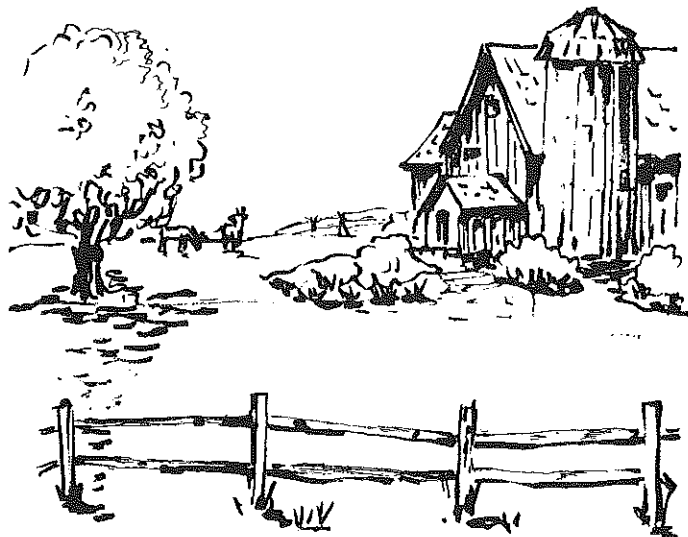
The pollution of soil, water and air, probably more than any other factor, makes open space unsuitable for desirable uses. Here there is both a challenge and an opportunity to improve pollution control by strengthening local ordinances. In the study area, water quality is the most pressing pollution problem.

Mattabesset River — This river, in several sections an excellent open space amenity esthetically, has been degraded by more than a century of domestic and

industrial pollution. The stream presently has a water quality classification of "D" (water "suitable for navigation, power, certain industrial processes and cooling and migration of fish; good esthetic value").

Looking to the future, the Mattabesset River has been assigned a standard of "B" (water "suitable for bathing and other recreational purposes, agricultural uses, certain industrial processes and cooling, excellent fish and wildlife habitat, good esthetic value; acceptable for public water supply with appropriate treatment").

This upgrading is expected to be achieved in time by the new treatment plant of the Mattabesset Sewer Authority (MSA) which began operation December, 1968. It should be noted that the stream will continue to receive raw sewage from East Berlin until the planned connection is made with the main MSA sewer line. Some industries still rely on the Mattabesset River for disposition of metals and industrial oil pollutants.



An accumulation of sludge in some sections blankets the bottom of the stream, greatly reducing the production of fish food organisms. Although Class D water quality is suitable for the migration of fish, shad or other migratory fish do not enter the Mattabesset River; in fact, the fish life, except carp, is virtually absent in the river below New Britain.

Stream flows (despite the MSA sewer diverting 12 million gallons of water a day) and water temperatures are satisfactory for fish life, including trout, even during prolonged hot weather. With the elimination of pollution, the outlook for the rehabilitation of the Mattabesset River as a fishing stream is optimistic.

State legislation restricts pollution of the Mattabesset and Coginchaug Rivers, but enforcement of this statute must be guaranteed. This can be implemented by strengthening the present system for the monitoring of physical, chemical, and biological conditions.

Coginchaug River — This stream has a water quality classification of "B".

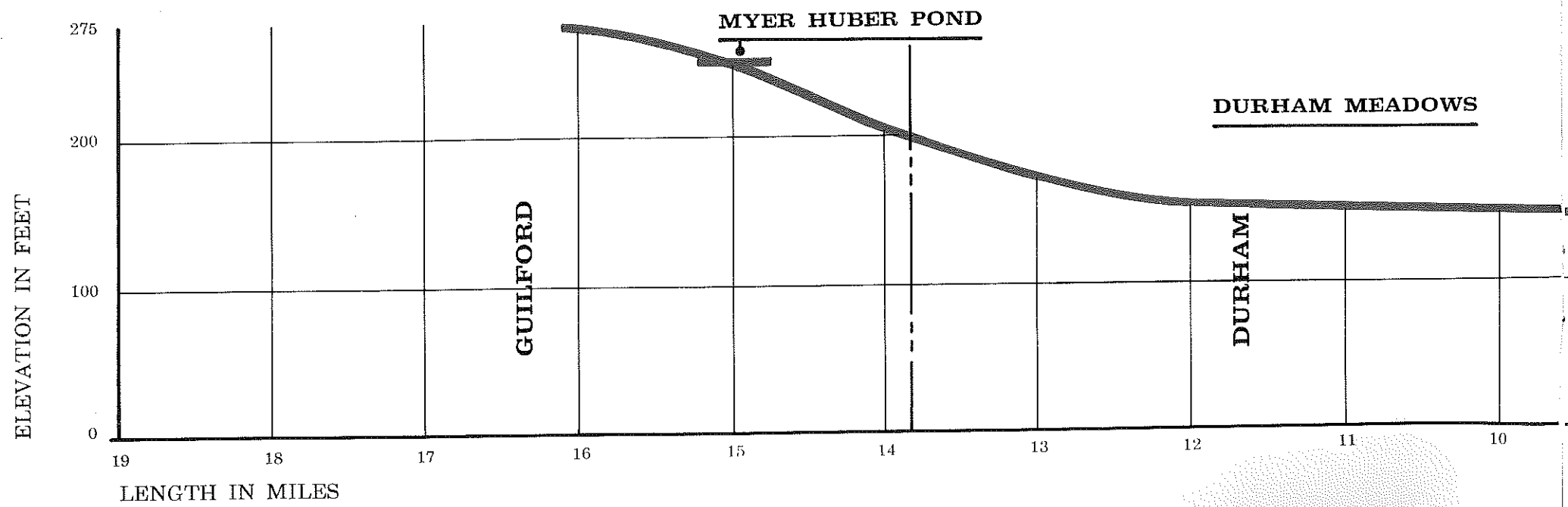
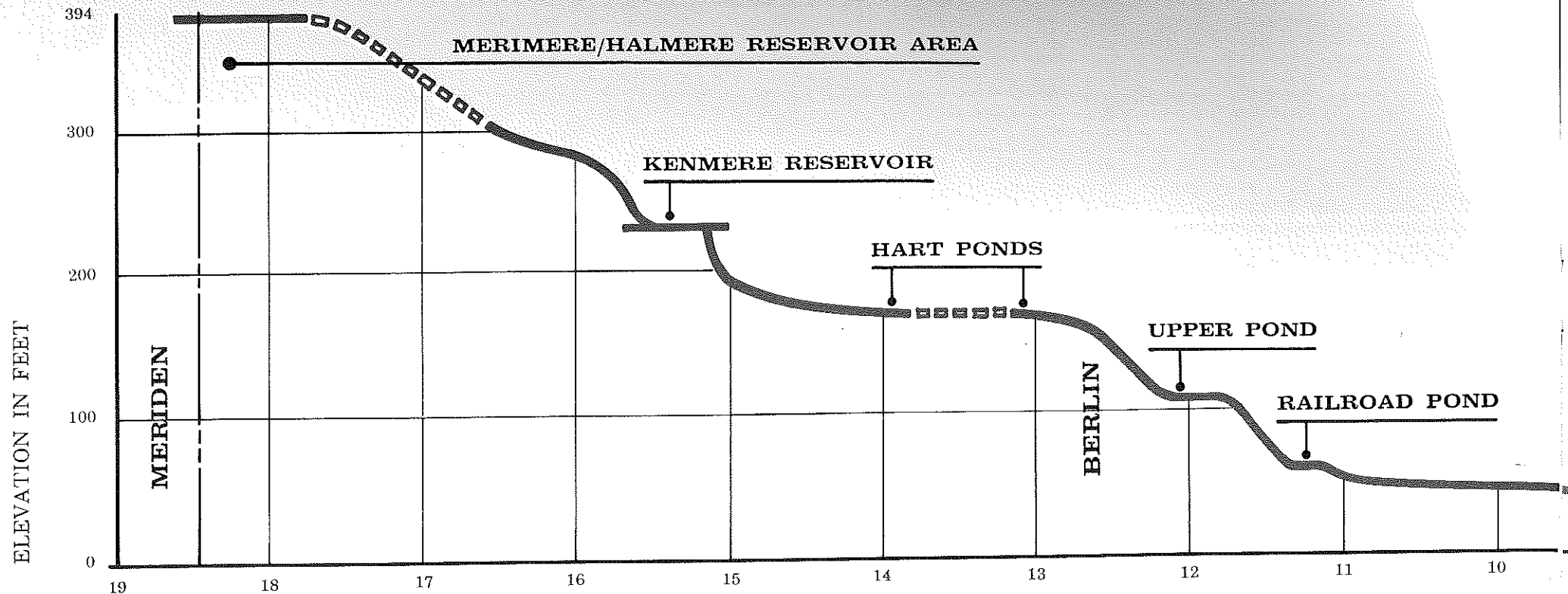
Here, the task is to maintain the present water quality of the stream. Periodic monitoring will help indicate any incipient pollution problems.

#### **BY TAX ASSESSMENT BENEFITS:**

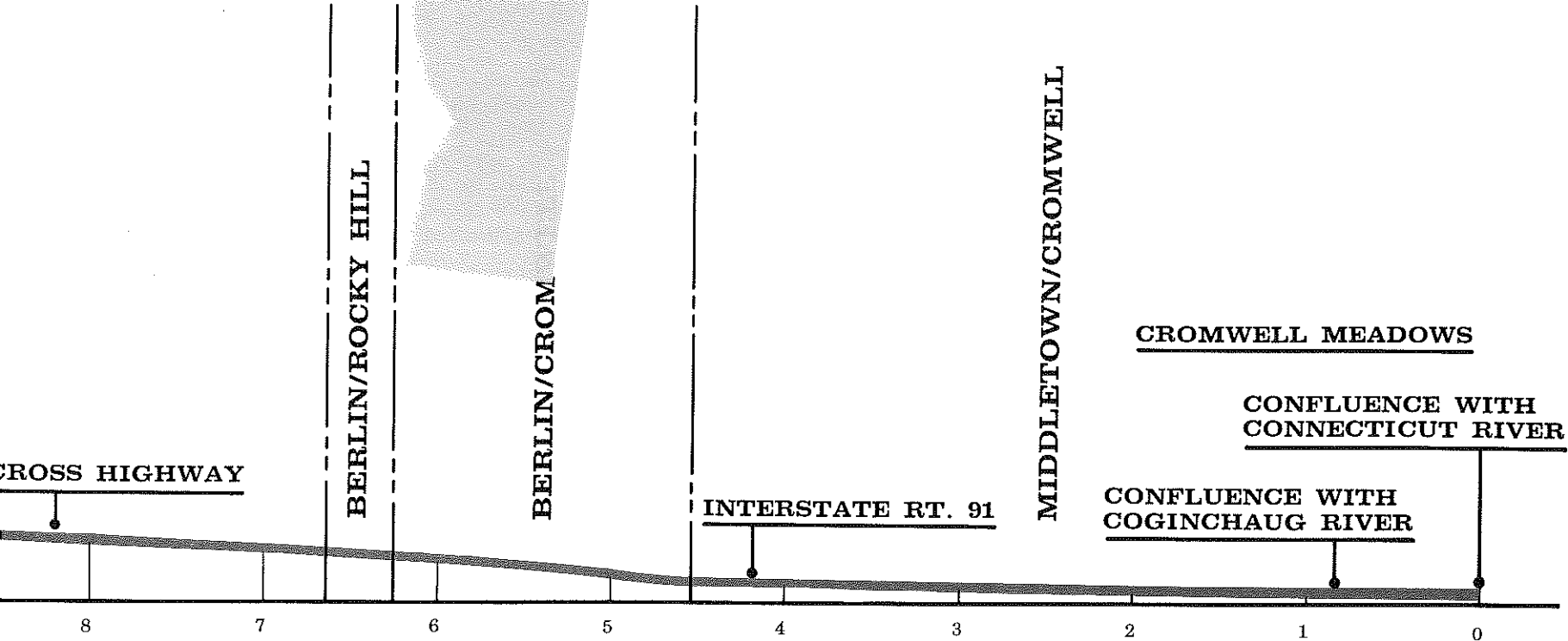
In 1963, Connecticut passed a law. (Public Act No. 490) providing for tax assessment benefits to owners of farm lands, forests and open space. The intent of the law was to prevent the forced conversion of such lands to more intensive uses because of economic pressures.

Under the current law, land classified for tax purposes as farm land, forest or open space, is valued on a basis of its current use. The law also provides that open space value may not be less than the value of the land if classified as farm land.

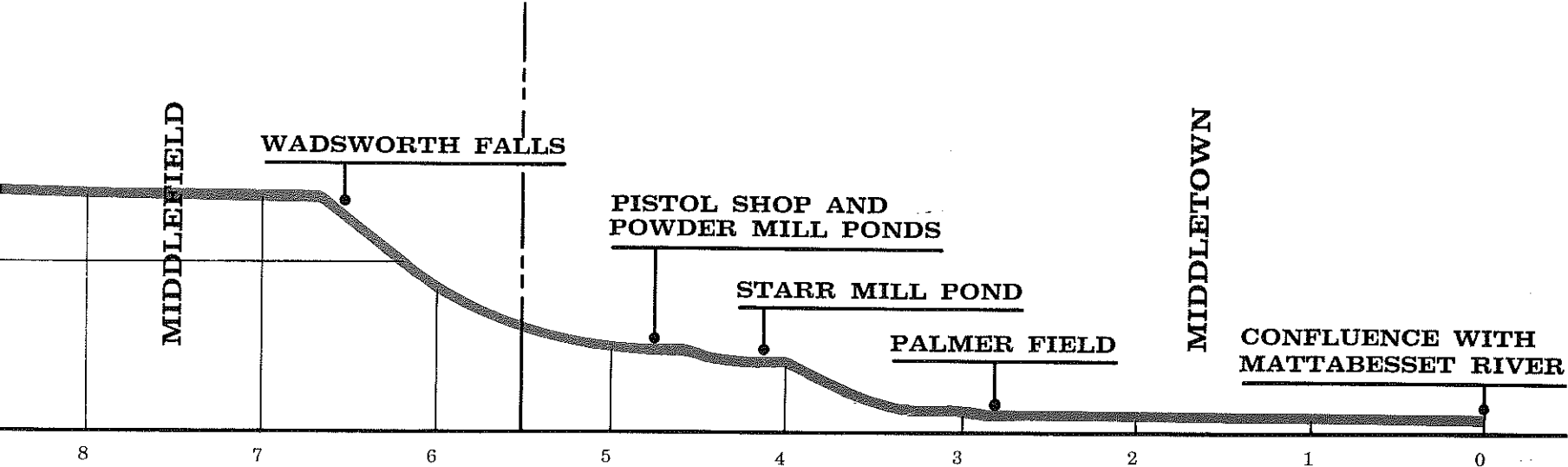
To be assessed as open space, land must be designated on a municipal development plan adopted by the municipality. In view of this requirement, it is recommended that municipalities in the study area review their lands to identify further opportunities for preserving rapidly diminishing open space.



# MATTABESSET RIVER PROFILE



# COGINCHAUG RIVER PROFILE



LEGEND ——— CENTERLINE OF RIVER - - - - - INTERMITTENT STREAM OR SWAMPLANDS

### **BY THE PRIVATE SECTOR:**

Another means of preserving open space is through property privately owned and privately controlled, but open to the public.

For example, River Grove, a mini-linear green belt bordering the highway just north of Wadsworth Falls State Park, owned by the Rockfall Corporation, is one of the most delightful open space amenities in the study area. It is suggested that the possibility of adding to the area, especially the adjoining Coginchaug River section, be considered by the Corporation.

Marszalek Park, a vest pocket park playground, bordering the Coginchaug River and formerly owned by Mastercraft Trailers, was sold to the City of Middletown at a nominal price, thus insuring its continuance as open space.

Upper Pond, Railroad Pond and Brickyard Ponds in the Mattabesset Watershed, Town of Berlin, are owned by industrial firms, but are open to the public for recreation.

It is suggested that a survey be made of industrial firms in the study area by local and regional planning agencies, so that similar properties in private ownership may be identified and preserved as open space amenities.

### **ACQUISITION**

There is no substitute for the public ownership of open space. The strengthening of controls to preserve open space is a slow, evolutionary process, depending largely on public interest and support. Securing open space by acquisition involves administrative action which can be taken much more promptly.

### **BY PURCHASE:**

The most positive way to preserve open space in public ownership is through purchase by the appropriate state agency or municipality. The time to buy is now, while desirable open space is undeveloped and available, and before rising real estate costs make it prohibitive for government agencies to purchase such land.

In order to stretch annual appropriations to include as many new properties as possible, it is suggested the system of installment purchasing be explored.

In the study area, prompt purchase of the following open space tracts is recommended:

### **TRACT NO. 1 — MATTABESSET WETLANDS**

Location — This tract borders the south side of the Mattabesset River south of Corbin Avenue, near the village of Berlin Station in the Town of Berlin.

Area — 215 acres (approximately)

Description — The site is mostly marsh land with some areas of shrub and mixed hardwood growth.

Remarks — We recommend that this be purchased by the State Board of Fisheries and Game to preserve an important breeding area for rail and other marsh birds. This land also has potential for limited hunting.





#### TRACT NO. 2 — MATTABESSET LAND AND WATER CONSERVATION AREA

Location — This tract borders both sides of the Mattabesset River, in the Town of Berlin. It is bounded roughly by Wethersfield Road on the north, Berlin Street on the south, Beckley Road on the west and Interstate Route 91 on the east.

Area — 1,200 acres (approximately)

Description — These river bottomlands on both sides of the Mattabesset River and the adjoining uplands are mostly uncultivated farmlands, primarily pastures, and sparse mixed hardwood stands, now in various stages of reversion.

Remarks — We recommend that at least 500 acres or more be purchased in this area by the State Board of Fisheries and Game. The holding should be in a fairly contiguous block, but no dwellings should be taken. The abandoned railroad track bed should be included in this purchase tract, to provide an inexpensive access.

Land and water conservation areas make ideal open space. The acquisition cost is the chief financial consideration since the development cost is usually minimal. The recreation which these areas provide — hunting, fishing, hiking, bird-watching, photography and informal picnicking, because of limited or seasonal use, have little impact on the environment, and permit such areas to maintain natural conditions. Finally, such areas can be undeveloped open space in escrow, so that future generations, as indicated, can re-evaluate conditions and participate in the decision making.

#### TRACT NO. 3 — MATTABESSET RIVER LINEAR GREEN BELT

Location — This tract borders both sides of the Mattabesset River south of Route 72, to the west and just above Cromwell Meadows in the Town of Cromwell and City of Middletown.

Area — 250 acres (approximately)

Description — This site is river bottomlands in a flood prone zone of mostly shrub growth and mixed hardwoods.

Remarks — We recommend that this be purchased by the Town of Cromwell and City of Middletown to preserve an open space buffer strip and prevent costly development in the flood plain. The area also has potential for a day-use recreational area, nature trail, or river bank sitting and strolling park.

#### TRACT NO. 4 — WETLANDS, ADDITIONS TO CROMWELL MEADOWS

Location — This site is at the confluence of the Coginchaug and Mattabesset Rivers in the Town of Cromwell and City of Middletown.

Area — 600 acres (500 acres already in state ownership)

Description — This location is mostly marsh with a peninsula of upland in grass, shrub growth and mixed hardwoods. The area helps to control flood waters and offers bird watching and waterfowl hunting.



Remarks — We recommend that the 100 acres still in private ownership be purchased by the State Board of Fisheries and Game to protect and preserve the vital wetlands area.

#### TRACT NO. 5 — HIGHLAND POND

Location — This tract is north of Country Club Road and near the intersection of Interstate Route 91 and Country Club Road in the City of Middletown, bounded on the west by Atkins Street and on the north by Sawmill Road.

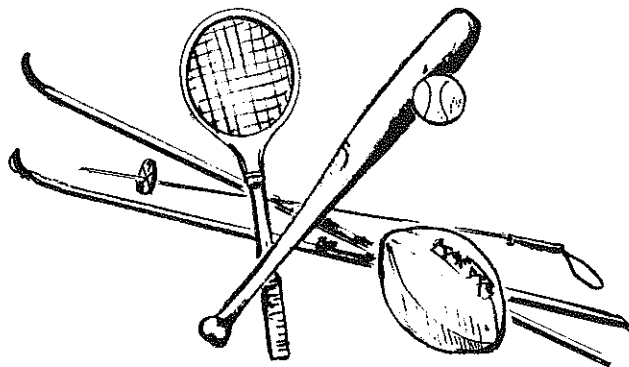
Area — 30 acres (approximately)

Description — The site is a natural area of waterfalls and wooded land surrounding a secluded pond.

Remarks — We recommend that this area be purchased by the City of Middletown to preserve the natural character of the pond area for passive recreation purposes (hiking, sitting, picnicking, fishing, etc.).

#### TRACT NO. 6 — RECREATIONAL OPEN SPACE, ADDITIONS TO PALMER FIELD

Location — This tract is located in an urbanized area of the lower Coginchaug River, north of Route 66 in the City of Middletown.



Area — 7 acres (approximately)

Description — There are three sites bordering the Coginchaug River: (1) the abandoned factory building and surrounding land adjoining Palmer Field (2) the river front area in the rear of the Wayside Furniture establishment and (3) the area north of Palmer Field, on the south side of the Coginchaug River.

Remarks — We recommend that all three sites be purchased by the City of Middletown: Site 1 (building has no value) would provide needed parking space; Site 2, under private ownership, is a landscaped linear green belt; and Site 3 would augment the green belt and would add to the Palmer Field recreation area.

A reserved life estate clause may be desirable in the purchase contract for Site 2 so that the present owner may continue using the property for life.

#### TRACT NO. 7 — RECREATIONAL OPEN SPACE AT STAR POND AND ADJOINING AREA.

Location — This tract borders Star Pond and the wetlands at the southwest end of Star Pond in the City of Middletown.

Area — 1 acre (approximately)

Description — The site includes a factory building and surrounding land.

Remarks — We recommend that this tract be purchased by the City of Middletown as a fishing facility.

#### TRACT NO. 8 — RECREATIONAL OPEN SPACE, ADDITIONS TO WADSWORTH FALLS STATE PARK

Location — This tract is located on the west side of two ponds and the river area adjoining Wadsworth Falls State Park in the Town of Middlefield.

Area — 4 acres (approximately)

Description — Included in this area are the west sides of Pistol Shop Pond and Bone Mill Pond, adjacent to

the Coginchaug River, the factory sites, and the surrounding lands.

Remarks — We recommend it be purchased by the State Park and Forest Commission as a buffer strip to protect Wadsworth Falls State Park from future encroachment. There is also potential for development of recreational areas, parking facilities, or a "sitting park."

A life estate reserve clause for owners may be desirable so that present owners or lessees may continue factory operations.

Both ponds also have historical significance.

#### TRACT NO. 9 — WETLANDS, ADDITIONS TO DURHAM MEADOWS

Location — This area is in the Coginchaug River Valley, bounded on the north by Durham Road and on the south by Parmelee Road.

Area — 800 acres (approximately 600 acres already in state ownership)

Description — The site is mostly marsh with some hardwood growth and patches of open water, offering bird-watching, upland and waterfowl hunting, and trapping.

Remarks — We recommend that the 200 acres still in private ownership be purchased by the State Board of Fisheries and Game to protect and preserve vital wetlands.

#### TRACT NO. 10 — SAWMILL BROOK WATER IMPOUNDMENT SITE

Location — This tract is part of Sawmill Brook Valley, north and south of the Durham-Wallingford Road (Route 68), in the Town of Durham.

Area — 283 acres

Description — The site is primarily pasture, swamp, and woodland.

Remarks — This land is vital to two proposed water impoundment sites on the Sawmill Brook. We recom-



mend that the land be acquired by the State Park and Forest Commission or the State Board of Fisheries and Game, for joint recreational development with the Town of Durham in the future.

#### TRACT NO. 11 — PARMELEE BROOK WATER IMPOUNDMENT SITE

Location — This tract is west of Highway 17 and Sawmill Road; south of Parmelee Hill Road; and east of David Road in the Town of Durham.

Area — 147 acres

Description — The site is primarily pasture, marsh land and woodland.

Remarks — This land is vital to a proposed water impoundment of Parmelee Brook. We recommend that the land be acquired by the State Park and Forest Commission or the State Board of Fisheries and Game, for joint recreational development with the Town of Durham.

TRACT NO. 12 — COGINCHAUG LAND AND  
WATER CONSERVATION

Location — This site includes the bottomlands bordering both sides of the Coginchaug River and adjoining the uplands, bounded roughly on the north by Meeting House Road and extending southward to the river's source, Myer Huber Pond.

Area — 500 acres (out of 2800 acres under consideration in this tract)

Description — The area is a mixture of agricultural and wooded land, in various stages of utilization and reversion. The woodlands consist primarily of mixed hardwoods with some conifers.

Remarks — This area has similar advantages to those described under Tract No. 1. We recommend that 500 acres be purchased by the State Board of Fisheries and Game. This purchase should exclude buildings and lie in a contiguous block.

**BY LONG-TERM LEASING:**

In lieu of outright purchase in fee, permanent or long-term leases offer an excellent means of preserving open space.

For example, permanent leases of fishing rights on trout streams have been used very successfully in Connecticut. To date, fishing rights have been leased for several areas along Coginchaug River.

In the study area, it is recommended that long-term leasing be considered in the following situations:

Coginchaug River — Recommended that efforts of the State Board of Fisheries and Game be intensified to secure permanent fishing rights leases.

Westfield Gun Club (600 acres) & Middlefield Fish and Game Club (875 acres) — These permit-required hunting areas are controlled by leases which can be cancelled by the property owner on 30 days' notice. It is recommended that the State Board of Fisheries and Game explore the possibility of negotiating long-term leases on these important open space areas.

**BY CONDEMNATION:**

Many important open space lands can no longer be acquired by the willing sale of the property owner. Where open space preservation, such as vital wetlands, is of great public concern, it is recommended that the State use its powers of eminent domain.

**BY GIFT:**

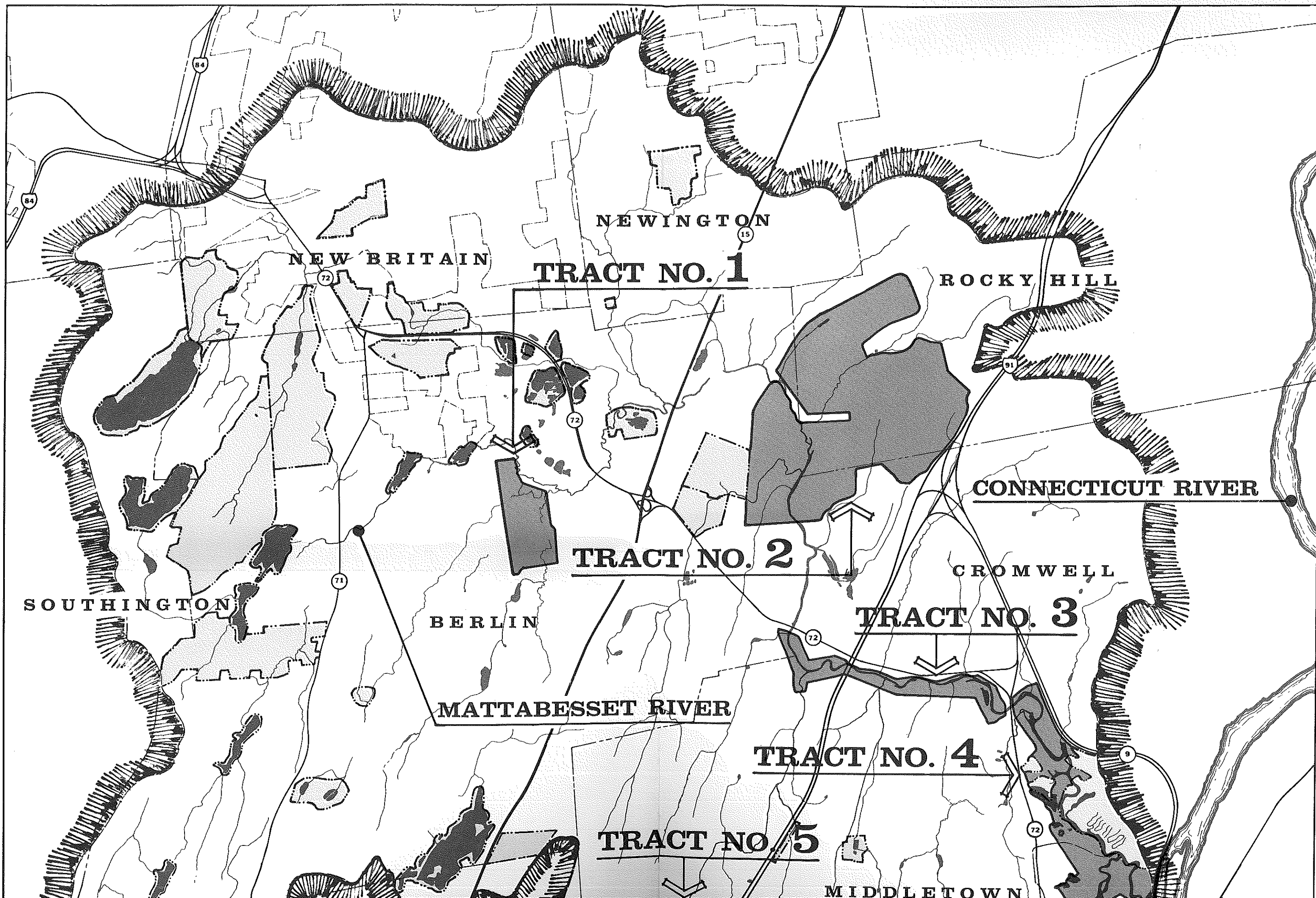
Donations of suitable lands and waters by individuals, foundations and corporations offer another important way to get and to preserve open space.

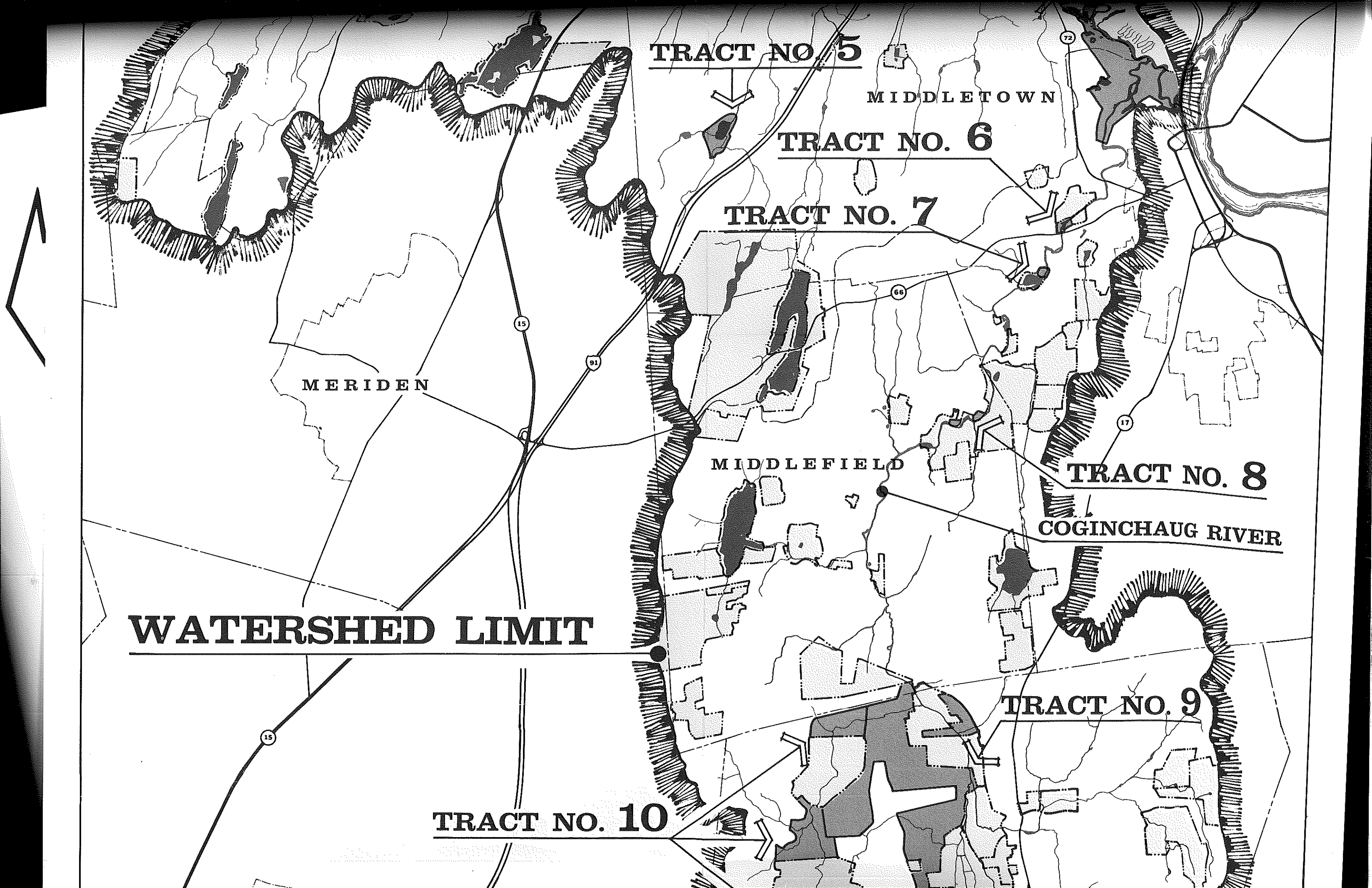
Current income tax laws concerning wills, charitable deductions, capital gains benefits often make gifts of open space attractive to property owners. Moreover, through a reserved life estate clause, by giving the owner continuing life use of the property, opportunities for acquiring open space by gift are increased considerably.

In the study area, however, gifts have not been significant as a means of getting privately-owned open space into public ownership. It is suggested that local and regional planning agencies develop better ways and means of acquiring open space by gift.



**PROPOSED  
OPEN  
SPACE  
ACQUISITION**





**TRACT NO. 5**

MIDDLETOWN

**TRACT NO. 6**

**TRACT NO. 7**

MERIDEN

MIDDLEFIELD

**TRACT NO. 8**

COGINCHAUG RIVER

**WATERSHED LIMIT**

**TRACT NO. 9**

**TRACT NO. 10**



WATERSHED LIMIT

TRACT NO. 9

TRACT NO. 10

TRACT NO. 11

TRACT NO. 12

DURHAM

GUILFORD

NORTH

SCALE IN FEET

2000 0 4000 8000

PROPOSED  
OPEN SPACE ACQUISITION

EXISTING OPEN SPACE

# PROPOSED OPEN SPACE ACQUISITION

For example, permanent leases of fishing waters in trout streams have been used to preserve open space. In fact, permanent or long-term leases offer an excellent means of preserving open space. For example, permanent leases of fishing waters in trout streams have been used to preserve open space. In fact, permanent or long-term leases offer an excellent means of preserving open space.

and regional planning. It is significant as a means of getting privately-owned open space into public ownership. It is significant as a means of getting privately-owned open space into public ownership. It is significant as a means of getting privately-owned open space into public ownership.

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**FINANCING OPEN SPACE**

## FINANCING OF OPEN SPACE

When the decision is made to preserve a particular open space in the study area by acquiring it for public ownership, there are, fortunately, several sources of funds available.

Most helpful is a federal assistance program to the State and its political subdivisions, the *Land and Water Conservation Fund* which provides open space grants-in-aid based on a formula for matching funds. This fund is especially valuable to both the State and towns in helping to acquire open space oriented to recreation. Most of the tracts recommended for purchase in this study are eligible for consideration under the Land and Water Conservation Fund. For the federal fiscal year 1971, Connecticut's apportionment from the fund is \$3,280,754. Subject to federal project approval, these monies can be used as soon as appropriate matching funds are made available by the State of Connecticut or its municipalities.

Another federal assistance act, *Title VII of the Housing Act of 1961*, provides funds on a matching formula basis for open-space acquisition in urban areas.

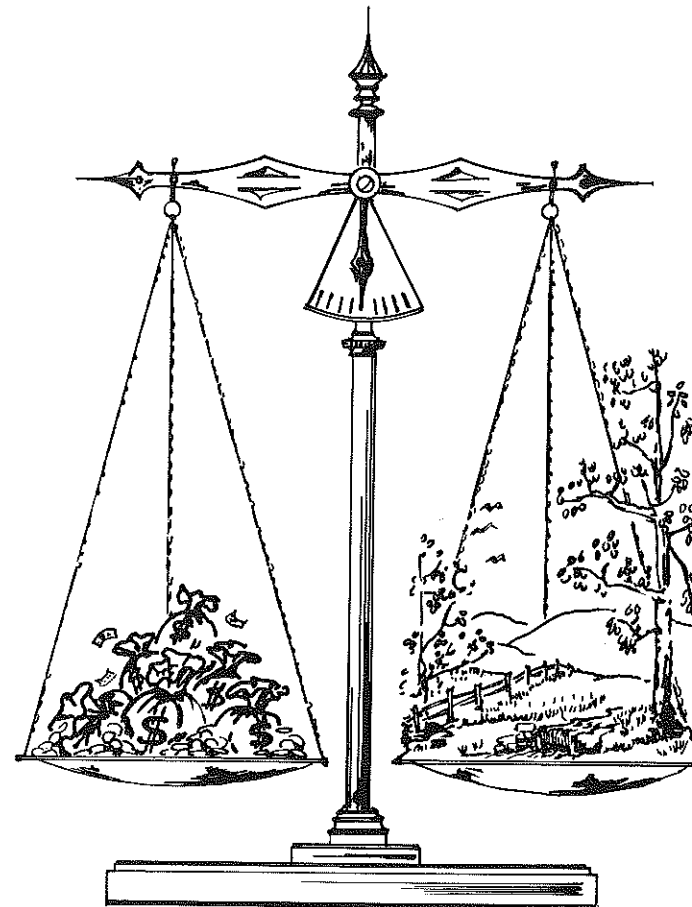
Monies from two other federal funds; *Pittman-Robertson Fund* (Wildlife) and *Dingell-Johnson Fund* (Fish) are eligible for open space acquisition oriented to hunting and fishing.

The *Connecticut Open Space Grants-In-Aid Act* makes grants available, also on a matching basis formula, to assist municipalities in buying open space.

*Public Act 460* authorizes the creation of public recreational facilities authorities and provides for the issuance of revenue bonds. The law provides a means of financing acquisition and construction costs of

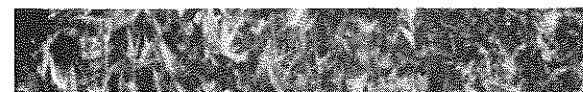
recreational facilities. Since many of the open space acquisition proposals feature recreational use, the law which has not been used since it went into effect in 1965, suggests a mechanism for a community or several communities to acquire open space which incorporates recreational opportunities.

The use of the above funds for open space, of course, depends on thought being given to the inclusion of adequate appropriations in state and municipal budgets to provide the required matching funds.





# RECOMMENDATIONS



- To enhance and intensify ways and means of protecting and preserving open space in the Coginchaug and Mattabeset River Valleys, it is recommended that:
- Executive and administrative action be taken promptly when open space is in danger of being destroyed before all factors involved can be evaluated.
- Legislative action be taken at all levels of government in the study area to develop more effective types of zoning, pollution control, and tax assessment benefits.
- Legislative action at the State level be taken to encourage, in the future, the multiple-use of reservoirs to be used for water supply and to provide for minimum flows below all reservoirs.
- Legislative action at the State level be taken to establish minimum flow standards when natural stream flow is diverted from a water course.
- Prompt consideration be taken at legislative and administrative levels of the open space tracts proposed for purchase.
- Budgetary action be given to provide matching monies for the available federal, financial-aid funds.
- Consideration by the proper administrative agencies be given to the preservation of open space by long-term leasing.
- The eminent domain power of the State of Connecticut be used when vital open space cannot be acquired by willing sale of the property owner.
- Interagency teams from appropriate State and local departments be set up to review all existing and future values of open space sites being considered for highways, housing, commercial and other purposes.
- Efforts be intensified by administrative and planning agencies to interest the private sector, especially by gifts of land and money, in taking a more active role to protect and preserve open space.

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## CREDITS

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